

IN THE CLAIMS

Claim 1. (Currently Amended) A method for selectively reading counter information in a network device, the method comprising the steps of:

setting a first ripeness indicator associated with a value of a first counter, the first counter containing information associated with a statistic of traffic being handled by the network device, the first ripeness indicator indicating that a value of the first counter has reached a particular value;

reading the first counter in response to setting of the first ripeness indicator to determine the value of the first counter only after the first ripeness indicator has been set and in response to the setting of the first ripeness indicator, the first counter containing information associated with a statistic of traffic being handled by the network device.

Claim 2. (Original) The method of claim 1, further comprising resetting the first ripeness indicator to a default value.

Claim 3. (Original) The method of claim 1, further comprising reading at least a second counter in response to setting of the first ripeness indicator.

Claim 4. (Original) The method of claim 1, further comprising setting the first ripeness indicator when a second counter reaches a particular value.

Claim 5. (Original) The method of claim 1, further comprising dynamically adjusting the particular value.

Claim 6. (Original) The method of claim 1, wherein the counter is configured to measure at least one aspect of data traffic received by the network device from a communications network.

Claim 7. (Original) The method of claim 1, further comprising counting, by the network device, data traffic received by the network device; and utilizing the first counter to record at least one aspect of the data traffic received by the network device.

Claim 8. (Currently Amended) A network device, comprising:

a forwarding engine configured to process data traffic received by the network device;

a plurality of counters configured to monitor aspects of data traffic received by the network device;

a plurality of ripeness indicators, each of the ripeness indicators being associated with one or more of the counters, each of the ripeness indicators being indicative of a fullness level of the one or more counters with which it is associated and indicating that the fullness level of the one or more counters has exceeded a particular level; and

control logic configured to harvest information from the one or more counters associated with a ripeness indicator only after once that ripeness indicator has been set.

Claim 9. (Previously Presented) The network device of claim 8, wherein the control logic is configured to read the ripeness indicators, ascertain which counters are ripe for harvesting, and cause the counters associated with those ripeness indicators to be harvested.

Claim 10. (Original) The network device of claim 8, wherein the ripeness indicators comprise an array of bits, each bit representing at least one of said counters.

Claim 11. (Original) The network device of claim 8, wherein the ripeness indicators comprise an array of bits, and wherein subsets of said bits represent at least one of said counters.

Claim 12. (Currently Amended) A The network device of claim 8, comprising:

a forwarding engine configured to process data traffic received by the network device;

a plurality of counters configured to monitor aspects of data traffic received by the network device;

a plurality of ripeness indicators, each of the ripeness indicators being associated with one or more of the counters, each of the ripeness indicators being indicative of a fullness level of the one or more counters with which it is associated and indicating that the fullness level of the one or more counters has exceeded a particular level; and

control logic configured to harvest information from the one or more counters associated with a ripeness indicator once that ripeness indicator has been set;

wherein the forwarding engine maintains the counters.

Claim 13. (Original) The network device of claim 8, wherein the control logic is part of the forwarding engine.

Claim 14. (Original) The network device of claim 8, further comprising a switch fabric connected to the forwarding engine.

Claim 15. (Original) The network device of claim 8, further comprising a statistics coprocessor configured to interface with said counters and said control logic to enable meaningful statistics to be generated from values harvested from said counters.

Claim 16. (Previously Presented) The method of claim 4, further comprising reading at least the second counter in response to setting of the ripeness indicator.